CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER 92-069

REVISED SITE CLEANUP REQUIREMENTS FOR:
(RESCINDING ORDER 90-062)

SWEETLAND CORPORATION/PAUL MUNROE HYDRAULICS, INC. AND T&M JOINT VENTURE NO.3

FOR THE PROPERTY LOCATED AT:
3701 Thomas Road
Santa Clara
Santa Clara County

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. SITE DESCRIPTION From 1980 until 1991 Paul Munroe Hydraulics, Inc. and its successor in interest the Sweetland Corporation operated a mobile hydraulic equipment repair and manufacturing facility located at 3701 Thomas Road in Santa Clara, between highway 101 and Montague Expressway (Figure 1). Soil and groundwater at this site are polluted with organic solvents and petroleum hydrocarbons.

2. REGULATORY STATUS Sweetland Corporation/Paul-Munroe Hydraulics, Inc. (Sweetland/PMH), is named as a primary discharger of oil and grease detected in soil onsite because of their occupancy of the site since 1980 and use of the products. Sweetland/PMH leases the site from T&M Joint Venture No. 3, the current site owner. T&M Joint Venture No.3 (T&M) is named as a secondary discharger and is secondarily responsible for the discharges caused by Sweetland/PMH because of their current ownership of the site and will be responsible for compliance with the requirements of this Order in the event that Sweetland/PMH fails to comply. Although volatile organic compounds (VOCs) have been detected in groundwater at the site Sweetland/PMH and T&M are not being named at this time because an onsite source has not been determined.

   Because the VOCs do not appear to be the result of onsite activity, staff are currently investigating upgradient properties to determine the source of the VOCs. Board intent is to name the upgradient source(s) of the VOCs responsible when they are identified. Should additional data indicate that an onsite source does exist, Board action may be required to name Sweetland/PMH and/or T&M responsible for the discharge.

3. SITE HISTORY Sweetland/PMH maintained a 500 gallon capacity, below grade, concrete oil separation tank. Typical operation of this separator involved the drainage and collection of spent hydraulic fluid and wash down chemical products from vehicles under repair at the subject facility. During removal of the tank in October 1986, it was observed to be cracked in several locations. No spills have been reported on this site in the past.

4. SITE GEOLOGY AND HYDROGEOLOGY The site is located on the bayland plain between Guadalupe River and San Thomas Aquino Creek. Shallow alluvial soils at the site consist primarily of clays and silts of low to high plasticity and unconsolidated fine to medium grained sands and silty sands. Approximately 20 feet below ground surface, medium to high plasticity silty clay was encountered.

   The shallow groundwater appears to flow preferentially in channel deposits on the site. Ground water flows, in general, south to north under the site at an approximate hydraulic gradient of 0.4%. This flow direction is essentially toward the San Francisco Bay and is consistent with the regional ground water flow direction for the area. Permeability values estimated from a well recovery test are $1x10^{-3}$ cm/sec to $5x10^{-3}$ cm/sec, with an assumed effective porosity for the aquifer materials of 45% to 30%. The average ground water velocity is estimated at 10 ft/yr to 60 ft/yr.

5. SITE INVESTIGATION An initial site investigation to determine the extent of soil pollution and to evaluate whether groundwater had been affected by site activities was begun in October 1986 with the removal of the cracked separator tank. Analytical results of a soil sample taken from below the groundwater table at the bottom of the excavation showed elevated concentrations of ethylbenzene (65 ppb), trichloroethene (2100 ppb) , toluene (900 ppb), tetrachloroethene (110 ppb), and total hydrocarbons as waste oil (3400 ppm). At the time of excavation the water table was at approximately 8 feet below surface and since has dropped 1 to 2 feet.

   In May 1987 Sweetland/PMH drilled six soil borings, three of which were completed as monitoring wells (Figure 2). Results of soil sample analyses demonstrated up to 8,300 ppm total Oil and Grease, up to 410 ppb TCE, 36 ppb PCE and 18 ppb toluene. Results of ground water sample analyses revealed up to 16 ppm of total Oil and Grease, 9 ppb TCA, 460 ppb TCE, 63 ppb 1,1-DCA and 11 ppb 1,2- DCA. No PCE was detected.

   Sweetland/PMH performed a soil gas survey in September 1988, to delineate the extent of groundwater pollution and select locations for proposed monitoring wells. Based on the

soil-gas survey results, three additional monitoring wells were installed: MW-4, MW-5 and MW-6 (Figure 3).

In April 1989, Sweetland/PMH conducted two supplemental investigations consisting of soil probe groundwater sampling and well sampling. Results of these supplemental tasks indicate that there also appears to be an offsite source for VOC groundwater pollution. The analytical results from the groundwater samples detected 2,600 ppb of TCE, up to 210 ppb 1,1-DCE, 31 ppb 1,1-DCA, 8 ppb 1,2-DCA in well MW-4, and 320 ppb TCE in MW-5.

In September, 1989 Sweetland/PMH performed soil probe groundwater sampling in the vicinity of an underground drainage pipe in the parking lot and the former storage tank in order to further characterize the sources of VOC groundwater pollution. Results of the groundwater probe sampling confirmed the presence of VOCs in groundwater (TCE at 2400 ppb, 1,1-DCE at 170 ppb) onsite but does not confirm the drainage pipeline as a potential source of VOC groundwater pollution.

Following adoption of Order 90-062 and pursuant to task C.1.c. and C.1.d. of the Order, a workplan and report containing the results of an additional investigation were submitted May 3, 1991 and September 30, 1991 respectively. The additional investigation was to determine the extent and source of VOCs in groundwater onsite. Cone penetrometer and hydropunch sampling was conducted at the site to determine the lateral and vertical extent of relatively high permeability sediments and to measure concentrations of VOCs in these sediments. The rationale for this method of investigation was to identify buried channel deposits and to gather data to support the theory that these channels were acting as conduits for migration of VOCs from an upgradient source.

Groundwater data from the hydropunch sampling was collected across the upgradient boundary and the downgradient borders of the site. Samples were taken at various depths in each of the locations using a screen interval of about 1 foot. Results of this investigation detected VOCs in groundwater samples at approximately the same concentration along the upgradient border as at the downgradient border. The concentrations of VOCs in groundwater along both borders exceeded 1 ppm, and were approximately the same as highest concentration now found in groundwater samples from the monitoring wells. From these results staff have concluded that channels of higher permeability sediments appear to be acting as a localized conduit for migration of pollutants from an upgradient source. Staff have begun an investigation to identify potential upgradient discharger(s).

6. INTERIM SOIL AND GROUNDWATER REMEDIATION An initial site interim remedial action was begun in October 1986 with the removal of the cracked separator tank. At that time, a limited amount of soil (approximately 7 cubic yards) was removed from the tank pit. In May and June 1988 during additional excavation of the separator tank pit, all visibly polluted soils were removed from the tank pit. Total volume of polluted soils removed during all phases of excavation was approximately 302 cubic yards. To date there has been no interim remedial action taken towards groundwater.

7. GROUNDWATER POLLUTION Polluted soil remaining onsite poses a potential point source for further groundwater pollution. To date, no petroleum hydrocarbons related to the discharge by Sweetland/PMH have been detected in the groundwater monitoring wells. VOCs have been detected in groundwater and their extent has neither been fully defined nor contained.

8. SCOPE OF THIS ORDER This Order requires continued groundwater monitoring under an amended schedule and program. The tasks in this Order are necessary to monitor and evaluate the threat to the environment posed by further migration of the existing soil pollution, and to provide a substantive technical basis for design of final cleanup actions should they be required.

9. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) in December, 1992. The Basin Plan contains water quality objectives and beneficial uses for south San Francisco Bay and contiguous surface and ground waters.

10. The existing and potential beneficial uses of the groundwater underlying and adjacent to the facility include:

    a. industrial process water supply
    b. industrial service water supply
    c. municipal and domestic water supply
    d. agricultural water supply

11. The dischargers have caused or permitted, and threatens to cause or permit waste to be discharged or deposited where it is or probably will be discharged to waters of the State and creates or threatens to create a condition of pollution or nuisance.

12. This action is an order to enforce the laws and regulations administered by the Board. This action is categorically exempt from the provisions of the CEQA pursuant to Section 15321 of the Resources Agency Guidelines.

13. The Board has notified the dischargers and interested agencies

and persons of its intent under California Water Code Section 13304 to prescribe Site Cleanup Requirements for the site, and has provided them with the opportunity for a public hearing and an opportunity to submit their written views and recommendations.

14. The Board, in a public meeting heard and considered all comments pertaining to the Site.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the dischargers, their successors and assigns shall cleanup and abate the effects described in the above findings as follows:

A. PROHIBITIONS

1. The discharge of wastes or hazardous materials in a manner which will degrade water quality or adversely affect the beneficial uses of the waters of the State is prohibited.

2. Further significant migration of pollutants through subsurface transport to waters of the State is prohibited.

3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of pollutants are prohibited.

4. The storage, handling, treatment or disposal of soil or groundwater containing pollutants shall not create a nuisance as defined in Section 13050(m) of the California Water Code.

B. SPECIFICATIONS

1. Sweetland/PMH shall conduct site investigations and monitoring activities as needed to define the current local hydrogeologic conditions, and the lateral and vertical extent of soil and groundwater pollution related to its known discharge of petroleum hydrocarbons. Should monitoring results show evidence of plume migration, additional plume characterization may be required.

2. The cleanup goal for polluted soils and groundwater shall be determined by the Board. If any chemicals are left in the soil some follow up groundwater monitoring will be required.

3. The dischargers shall optimize reclamation of any groundwater extracted as a result of cleanup activities, with a goal of 100% reuse, or pursue discharge to a local Publicly Owned Treatment Works. The dischargers shall not be found in

violation of this Order if documented factors beyond the dischargers' control prevent them from attaining this goal, provided they have made a good faith effort to attain this goal.

C. PROVISIONS

1. The dischargers shall comply with the Prohibitions and Specifications of this Order in accordance with the following tasks and time schedules:

**TASKS AND COMPLETION DATES**

a. TASK: AMENDED GROUNDWATER SAMPLING SCHEDULE AND PROGRAM
DUE DATE: July 1, 1992

Description: Monitoring well MW-3 shall be sampled and analyzed for petroleum hydrocarbons as motor oil by EPA method 8015 semi-annually. Should detectable levels be measured during sampling, the sampling program and schedule may be modified by the Board.

Sampling procedures and analyses required in the current SAP shall remain unchanged. Monitoring wells other than those stated above shall not require sampling at this time.

c. TASK: FIVE-YEAR STATUS REPORT
DUE DATE: June 17, 1997

Description: Submit a technical report acceptable to the Executive Officer containing: 1) results of any site investigative work completed; 2) an evaluation of the effectiveness of installed final cleanup measures to include total pounds of chemicals removed from soil and groundwater; 3) additional recommended measures to achieve final cleanup objectives and goals, if necessary; 4) a comparison of previous expected costs with the costs incurred and projected costs necessary to achieve cleanup objectives and goals; 5) tasks and time schedule necessary to implement any additional final cleanup measures, 6) recommend measures to reduce Board oversight. If safe drinking levels have not been achieved through continued groundwater extraction and/or soil remediation, this report shall also contain an evaluation of the feasibility of achieving drinking water quality with the implemented remedial measures and a proposal for alternative measures if required to achieve

drinking water quality.

2. All technical reports submitted must be acceptable to the Executive Officer. The submittal of technical reports evaluating remedial measures shall include a projection of the cost, effectiveness, benefits, and impact on public health and the environment. Remedial investigation and feasibility studies shall consider the guidance provided by Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300); Section 25356.1(c) of the California Health and Safety Code; CERCLA guidance documents with reference to Remedial Investigation, Feasibility Studies, and Removal Actions; and the State Water Resources Control Board's Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California".

3. If the dischargers are delayed, interrupted or prevented from meeting one or more of the completion dates specified in the Order, the dischargers shall notify the Executive Officer prior to the deadline for the completion date.

4. The dischargers shall submit to the Board acceptable status reports on compliance with the requirements of this Order, and containing results of groundwater monitoring under the schedule stipulated in provision C.1.a. The reports shall be due on the last day of the month following the semi-annual calendar period. The first report shall be due on July 31, 1992.

   Each report shall contain at least the following:

   a. a summary of work completed since the previous status report,
   b. a summary tabulation of all well construction data, quarterly groundwater level measurements,
   c. updated piezometric maps for all aquifers monitored and pollutant isoconcentration map, as applicable,
   d. identification of any obstacles which may threaten compliance with this Order and what actions are being, or will be, taken to overcome these obstacles, and
   e. discussion of events of noncompliance with this Order, including proposed tasks and time schedule to achieve compliance, identified incomplete work that was projected to be complete, and impact of noncompliance on complying with the remainder of this Order.

   On an annual basis, technical reports on the progress of compliance with all requirements of this Order shall be submitted, commencing with the report for 1992, due on January 31, 1993. The annual report may be combined with other technical report(s) which are due to be submitted concurrently. The annual report shall include, but is not

limited to, an evaluation of the effectiveness of the cleanup action/systems and the feasibility of attaining groundwater and soil cleanup goals.

5. All plans, specifications, reports, and documents shall be signed by or stamped with the seal of a duly licensed geologist, engineering geologist, or professional engineer.

6. All samples shall be analyzed by a State certified laboratory or laboratory accepted by the Board using approved EPA methods for the type of analyses to be performed. All laboratories shall maintain Quality Assurance/Quality Control records for Board review.

7. The discharger shall maintain in good working order, and operate, as efficiently as possible, any facility or control system installed to achieve compliance with the requirements of this Order.

8. Copies of all correspondence, reports, and documents pertaining to compliance with this Order shall be provided to the following agencies:

   a. Santa Clara Valley Water District
   b. Santa Clara County Health Department
   c. CAL-EPA Department of Toxic Substances Control (DTSC)
   d. City of Santa Clara

9. The discharger shall permit the Board or its authorized representative, in accordance with Section 13267(c) of the California Water Code:

   a. Entry upon dischargers' premises in which any pollution sources exist, or may potentially exist, or in which any required records are kept, which are relevant to this Order.
   b. Access to copy any records required to be kept under the terms and conditions of this Order.
   c. Inspection of any monitoring equipment or methodology implemented in response to this Order.
   d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the dischargers.

10. If any hazardous substance is discharged to any waters of the state, or discharged and deposited where it is, or probably will be discharged to any waters of the state, the discharger shall report such discharge to this Regional Board, at (415) 464-1255 on weekdays during office hours from 8 a.m. to 5 p.m., and to the Office of Emergency Services at (800) 852-7550 during non-business hours. A written report shall be filed with the Regional Board within five (5) working days and

shall contain information relative to the nature of waste or pollutant, quantity involved, duration of incident, cause of spill, Spill Prevention , Control and Countermeasure Plan (SPCC) in effect, if any, estimated size of affected area, nature of effect, corrective measures that have been taken or planned, and a schedule of these activities, and persons/agencies notified.

11. The Board will review this Order in approximately one year or when an upgradient source(s) is determined and may revise the requirements as appropriate.

I, Steven R. Ritchie, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of any Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on June 17, 1992.

Sincerely,

Steven R. Ritchie
Executive Officer

Attachments: Figure 1 (site map)


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(Approximate Scale in Miles)

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**Erler & Kalinowski, Inc.**

Site Location Map

Paul–Munroe Hydraulics, Inc.
Santa Clara, CA
September 1991
EKI 910015.00

**Figure 1**